

## ABSTRACT

A resilient pneumatic annular sealing bladder is coupled for fluid communication to a first pressurized pneumatic fluid to define a first pneumatic zone and is attached to a first surface of the wafer stop plate adjacent the retaining ring interior cylindrical surface to receive the wafer and to support the wafer at a peripheral edge. The resilient pneumatic annular sealing bladder defines a second pneumatic zone radially interior to the first pneumatic zone and extends between the first surface of the wafer stop plate and the wafer when the wafer is attached to the polishing head during a polishing operation and is coupled for fluid communication to a second pressurized pneumatic fluid. The wafer attachment stop plate is operative during non polishing periods to prevent the wafer from flexing excessively from an applied vacuum force used to hold the wafer to the polishing head during wafer loading and unloading operations.

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